

## REMARKS

This is intended as a full and complete response to the Office Action dated September 2, 2005, having a shortened statutory period for response set to expire on December 2, 2005. Please reconsider the claims pending in the application for reasons discussed below.

### ***37 C.F.R. § 1.105***

The Examiner has required submission of information that includes non-patent literature related to four-dimensional vertical seismic profiling and to use of in-phase upwave and downwave amplitudes measured by sensors and anti-phase downwave and upwave amplitudes measured by hydrophones and separation of downwaves and upwaves. In response, Applicant submits herewith an information disclosure statement (IDS). Other than any information in the references cited in the IDS, the information required to be submitted is unknown and/or is not readily available to the parties from which it was requested. Accordingly, Applicant requests that the foregoing be accepted as a complete reply pursuant to 37 C.F.R. § 1.105.

### ***Drawings***

The drawings stand objected to under 37 C.F.R. § 1.83(a). In response, Applicant has canceled claims 14 and 15, which are the only claims that have the "mandrel." Accordingly, Applicant requests withdrawal of the objection and acceptance of the drawings.

### ***Claim Rejections Under 35 U.S.C. § 112***

Claim 16 stands rejected under 35 U.S.C. § 112, first paragraph. The Examiner states that "one having ordinary skill in the art would not know how to perform four-

dimension (4D) vertical seismic profiling (VSP) without undue experimentation.” In response, the Applicant respectfully traverses the rejection.

The VSP is described in paragraph [0004] of the specification, as relied on by the Examiner regarding the rejection of claim 16. Paragraph [0010] of the specification further teaches that time-lapse VSP is known as 4D VSP. In other words, 4D VSP adds a fourth dimension of time to 3D VSP that provides a 3D spatial image of formations/fluids for a single instant of time. One skilled in the art would know that measurements taken over a period of time can provide 4D VSP to detect the movement of fluids over time. Therefore, Applicant submits that the subject matter of claim 16 has been described in such a way to enable one skilled in the art to make and/or use the invention. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of the claim.

### ***Claim Rejections Under 35 U.S.C. § 102***

Claims 1, 3, 7-11 and 29 stand rejected under 35 U.S.C. § 102(e) as being anticipated by *Knudsen, et al.* (U.S. Patent No. 6,575,033; hereinafter “Knudsen”). Claim 3 has been canceled without prejudice.

Claims 1 and 29 have been amended to include the limitations of claims 4 and 33, respectively, which have been indicated by the Examiner to be allowable. Therefore, Applicant submits that Knudsen fails to anticipate amended claims 1 and 29 and that these claims and all claims dependent thereon are allowable. Accordingly, Applicants respectfully requests withdrawal of the rejection of claims 1, 3, 7-11 and 29 and allowance thereof.

### ***Statement of Common Ownership***

Applicant submits that the present application, Serial No. 10/801,076, and U.S. Patent No. 6,575,033 (Knudsen) were commonly owned or subject to an obligation of assignment to Weatherford/Lamb, Inc. at the time the invention claimed in the present application was made.

### ***Claim Rejections Under 35 U.S.C. § 103***

Claims 20, 22, 27 and 31 stand rejected under 35 U.S.C. § 103(a) as being obvious over Knudsen in view of *Berg, et al.* (U.S. Patent Application 2004/0067002; hereinafter “Berg”). Claims 2, 6, 12-15, 32 and 35 stand rejected under 35 U.S.C. § 103(a) as being obvious over Knudsen in view of *Linyaev, et al.* (U.S. Patent No. 6,910,534; hereinafter “Linyaev”). Claim 21 stands rejected under 35 U.S.C. § 103(a) as being obvious over Knudsen and Berg in view of Linyaev. Claim 16 stands rejected under 35 U.S.C. § 103(a) as being obvious over Knudsen in view of admitted prior art. Claims 17-19 stand rejected under 35 U.S.C. § 103(a) as being obvious over Knudsen in view of *Bailey* (U.S. Patent 6,488,116; hereinafter “Bailey”). Claim 28 stands rejected under 35 U.S.C. § 103(a) as being obvious over Knudsen and Berg in view of Bailey.

Applicants have canceled claims 14, 15, 28 and 32 without prejudice. Claim 20 has been amended to include the limitation of claim 28, which depended from claim 20.

As stated in the Statement of Common Ownership above, Knudsen and the present invention were commonly owned at the time the present invention was made. Because the Knudsen reference qualifies as prior art only under § 102(e), Applicant submits that, pursuant to 35 U.S.C. § 103(c), the reference is not available to preclude patentability under 35 U.S.C. § 103(a). Therefore, Applicants request withdrawal of the obviousness rejections and allowance of the claims.

### ***Allowable Subject Matter***

Claims 4-5, 23-26 and 33 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. In response, Applicant has amended claim 1 to include the limitations of claim 4 and has canceled claim 4. Additionally, Applicant has amended claim 29 to include the limitations of claim 33, which is currently canceled. Furthermore, Applicant submits that claims 5 and 23-26 are allowable based at least on the traversal presented herein regarding the

independent claims from which these claims depend. Accordingly, Applicants respectfully request withdrawal of the objection and allowance of the claims.

### ***Conclusion***

The references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed. Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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